SYSTEM FOR SETTING IMAGE CHARACTERISTICS USING EMBEDDED CAMERA TAG INFORMATION

Patricia D. Lopez and Robert E. Sobol

ABSTRACT

A digital imaging system includes a color appearance handling capability that utilizes a database including actual image data and information relating to the actual image data to control illumination and color in digital images. The digital imaging system controls illumination and color with a color-by-correlation technology that includes an illuminant detection training algorithm that bases control of illumination and color on a database storing actual illuminants, scenes, and subjects from representative image acquisition devices such as digital cameras and scanners. In one example, illuminant detection training is accurately rendered for a variety of illuminants, scenes, and subjects that are expected to be of interest to users of a particular camera or group of cameras. In the example, the database is formed by user-group submissions from users of a particular camera or group of cameras. The digital imaging system accesses a database capable of supplying actual image data including illuminants, chromaticities, colors, and the like. The database also stores information relating to the actual image data including tags that identify the image acquisition device that acquires a particular image, and information relating to manufacturer, model and version of the image acquisition device, and image acquisition devices settings at the time of acquisition.